

Application #09/727,174  
Amendment dated December 30, 2005

**Remarks:**

In the Office Action mailed on 8/30/2005, the Examiner rejected claims 1-13. Applicant amends claims 37 and 42 herein. Claims 32-37, 41, 42, and 44-53 are pending in the application.

**Rejection under 35 USC 102(e)**

Claim 37 and 42 were rejected under 35 USC 102(e) as anticipated by U.S. Pat. App. Pub. No.: 2004/0041029 A1 (hereinafter "Postman"). Applicants have amended Claims 37 and 42 to more clearly recited the subject matter of the invention. Applicants traverse the rejection to the extent that the Examiner believes that the rejection is applicable to the claims as amended.

Anticipation under 35 U.S.C. 102(b) requires that each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP 2131, *citing, Verdegaal Bros. v Union Oil Co. of California*, 2 USPQ2d 1051,1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." MPEP 2131, *citing, Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Postman does not meet that test.

Claim 37 recites "means operable to receive a polling packet from the terminal on a synchronous communications channel; and means, in response to receiving a polling packet, operable to transmit an indication that the smart card desires to transmit data to the terminal over the synchronous communications channel".

Applicants have solved a problem of how to simulate asynchronous communication between smart cards and external resources. Smart cards typically communicate with a terminal to which it is connected via the

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ISO-7816 protocol. To communicate with devices located at points distant from the terminal, the smart card communicates via the terminal. All communication between the smart card and the terminal is over the ISO-7816 protocol. The ISO-7816 is a master-slave protocol in which the terminal is the master and the smart card the slave. It is a synchronous protocol.

The synchronous nature of the ISO-7816 protocol imposes limitations on the services that a smart card can provide. The power of a smart card would be much extended if that limitation did not exist. However, there is a large installed base of ISO-7816 terminals and smart cards. Furthermore, for other reasons, it is practical for smart cards to continue to adhere to the ISO-7816 standard. Therefore, to provide services on a smart card such that it can provide services that would require asynchronous communication, the deficiencies of the of ISO-7816 synchronous communication must be overcome, while still adhering to the standard. The applicants' novel and non-obvious invention does just that.

Applicants have amended Claims 37 and 42 to specify that the communications occur over a synchronous communications channel. That is not a limitation that Postman teaches or suggests. Contrary to the Examiner's position, Postman teaches nothing about smart cards or the communications between smart cards and the terminals to which they are attached. Postman teaches a system in which a PCMCIA defined PC card 10 communicates with a PDA (see Figure 1). As noted in Postman, "PC cards interface with 8 and 16 bit buses and support physical access to up to 64 megabytes of memory" (Postman, Paragraph 56). This may be seen in greater detail in Figure 3 in which the data bus 50 and address bus 52 are shown as connecting between the PCMCIA connector/bus interface 48. Postman explains how data is passed via the RAM 50 between the PCMCIA and the PDA ("the decoded alphanumeric data from the barcode will be passed to the PDA by placing the alphanumeric data in random

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access memory 50 and notifying the PDA to retrieve the data from the RAM 50" (Postman, Paragraph 70). It is further stated that, "RAM 50 is memory mapped in the Common Memory address space shared by both the PDA 26 and the microprocessor 38" (Postman, Paragraph 70). "Applicants could go-on-and-on in showing references in Postman that illustrated that the communication between the PCMCIA card and the PDA is via the PCMCIA bus and direct memory access over that bus. Thus, these devices do not communicate over a "synchronous communications channel" (Claim 32).

Claim 37 recites "means operable to receive a polling packet from the terminal on a synchronous communications channel; and means, in response to receiving a polling packet, operable to transmit an indication that the smart card desires to transmit data to the terminal over the synchronous communications channel". Postman does not teach or suggest such a limitation.

The Examiner asserts that paragraphs 83, 175-176 of Postman constitutes a teaching of "means, in response to receiving a polling packet, operable to transmit an indication that the smart card desires to transmit data to the terminal" (Office Action, Page 2, Numbered Paragraph 4). Applicants disagree. Paragraph 83 of Postman refers to that "the operating system process 93 receives requests from the client process 92 to read data from and write data to RAM, receives interrupts from or polls the input devices and the PC card regarding any new data from the input devices or PC card and passes that data to the client process 92 for processing" (Postman, Paragraph 83). In Paragraph 175, Postman states "the serial card has the capability of taking a TTL level output signal on line 511 that transitions between logic 1 and logic 0 and place it on a pin of the PCMCIA bus connector 502 which is polled by the host computer 500 periodically." Thus, all that Postman is doing is looking at, *polling* if you wish, a logic level of a pin in the PCMCIA connector. Thus, the PCMCIA

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card of Postman does not "receive a polling packet from the terminal on a synchronous communications channel" because the PDA of Postman never sends such a polling packet.

Considering that no polling packet is sent, it is clear that the card of Postman does not do anything in response to receiving that something which is never sent. Thus, Postman does not teach or suggest "in response to receiving a polling packet, operable to transmit an indication that the smart card desires to transmit data to the terminal over the synchronous communications channel".

For these reasons, Postman does not teach or suggest "each and every element as set forth in the claim ..., either expressly or inherently" and certainly not "in as complete detail as is contained in the ... claim." Accordingly, Claim 37 is not anticipated by Postman.

Claim 42 recites "the terminal having a means for simulating allowing the smart card to initiate communication with the smart card terminal by transmitting, over the synchronous communications channel, a polling packet to the smart card requesting an indication of whether the smart card desires to transmit data to the terminal". From the discussion above in support of Claim 37, that argument incorporated here by reference, it should be clear that Postman also does not teach or suggest such a limitation. Accordingly, Claim 42 is also not anticipated by Postman.

#### **Rejection under 35 USC 103(a)**

Claims 41, and 44-45 were rejected under 35 USC 103(a) as unpatentable over Postman as applied to Claim 37 in view of Gopal (U.S. Patent 5,889,963) and Claims 46-53 were rejected as unpatentable over Postman. To the extent that the Examiner believes that these rejections apply to the claims as amended (these claims depend from Claims 37 and

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42, respectively, and incorporate the limitations thereof), Applicants traverse the rejection.

As discussed hereinabove in support of Claims 37 and 42, Postman does not teach or suggest “means operable to receive a polling packet from the terminal on a synchronous communications channel; and means, in response to receiving a polling packet, operable to transmit an indication that the smart card desires to transmit data to the terminal over the synchronous communications channel.” To meet the requirements of a *prima facie* case of obviousness a reference or combination of references must teach or suggest all the elements of a claim. MPEP 2143. The combination or modification must be suggested by the references or the prior art generally available to a person of ordinary skill in the art. As noted, Postman lacks, at least, “means operable to receive a polling packet from the terminal on a synchronous communications channel; and means, in response to receiving a polling packet, operable to transmit an indication that the smart card desires to transmit data to the terminal over the synchronous communications channel”. To motivation to modify Postman to include such a limitation because Postman has available all the power of a PCMCIA card bus and can access memory locations in the PCMCIA over that bus. Therefore, there is no need in Postman for sending polling package and there is no need for the card to respond with an indication that the card desires to transmit data to the terminal.

Gopal also does not teach or suggest “means operable to receive a polling packet from the terminal on a synchronous communications channel; and means, in response to receiving a polling packet, operable to transmit an indication that the smart card desires to transmit data to the terminal over the synchronous communications channel”. Therefore, even the combination of Postman and Gopal would fail to include that limitation. Therefore, Claims 37 and 42 (for analogous reasons) are not obvious over Postman and Gopal, taken singly or in combination.

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Claims 41, 44-45 and 46-53 depend from Claims 37 and 42, incorporate the limitations thereof, provide further unique and non-obvious limitations, and are patentable, at least, for the reasons given in support of Claims 37 and 42 and by virtue of such further limitations.

### CONCLUSION

It is submitted that all of the claims now in the application are allowable. Applicants respectfully request reconsideration of the application and claims and its early allowance. If the Examiner believes that the prosecution of the application would be facilitated by a telephonic interview, Applicants invite the Examiner to contact the undersigned at the number given below.

Applicants respectfully request that a timely Notice of Allowance be issued in this application.

Respectfully submitted,

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